THE

PHYTOLOGIST.

A BOTANICAL JOURNAL.

EDITED BY

ALEXANDER IRVINE,

FELLOW OF THE BOTANICAL SOCIETY OF LONDON.

VOLUME THE SIXTH.

Ὡς ἐμεγαλύνθη τὰ ἔργα σου, Κύριε!—πάντα ἐν σοφίᾳ ἐποίησας.
ΨΑΛΜ. ργ'. 24.

Benedicite universa germinantia in terra Domino; laudate et superexaltate EUM in secula.—*Hymn. iii Pueror. v.* 76.

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1862–3.

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THE LONDON CATALOGUE OF BRITISH PLANTS,

Published under the Direction of the Botanical Society of London, adapted for marking Desiderata in Exchange of Specimens, etc.

WILLIAM PAMPLIN, 45, Frith Street, Soho Square.

THE PHYTOLOGIST.

1862.

THE ANNUAL ADDRESS TO THE READERS, CONTRIBUTORS, ETC.

Our Friends and Readers—in our own case we are both happy and proud to state that these two terms are synonymous—have now for a considerable period indulged the Editor with the liberty of entering, in this the first number for the new year, a multifarious series of topics on matters affecting the utility of this periodical, and which are conducive to the harmony that should exist between the readers and the writer, and especially between him and the contributors.

This article, which is anticipated with feelings akin to the delight which the juvenile branches of the community indulge at the recurrence of Twelfth-day, St. Valentine's, or any other season of festivity and merry-making, will not be a thing of shreds and patches, but rather something like the good fare of Christmas, which is produced by a judicious combination of many diversified but savoury ingredients.

Many communications of a confidential nature are received during the year, and a hope is here expressed that their authors are not disappointed because their good counsels, friendly advice, and courteous cautions have produced no *good* results so speedily as they expected.

The Editor's correspondents are hereby assured, that their honest sentiments on all subjects are treated with deference; and that their hearty approval or disapprobation of what they like or what they condemn, are certain pledges of the interest which they take in the prosperity of the publication.

BRITISH MUSEUM

Those who kindly point out slight errors or inaccuracies, are most deserving of our special and heartiest thanks. All such strictures the writers themselves will surely testify, have been received with submission, and even with gratitude. These corrections, if offered in kindness as well as in candour, are a source of encouragement, as they are stimulants to energetic exertion. They are more efficient inducements to an honest, earnest performance of our duties, than the mere necessity of labouring for our bread, or even the delight of being employed in a pleasing and congenial labour.

The Editor wishes implicitly to obey the apostolic injunction, viz. "Owe no man anything, but to love one another," while he is conscious of his utter inability to discharge his obligations to the contributors who supply him with material for this publication, and to the friends and readers who honour him with their approval of the manner in which he performs his part of the undertaking. As these services, contributions, and kind feelings, are labours of love or manifestations of charity, they are truly debts of gratitude, and are payable only in the same currency, viz. benevolence, good wishes, and heartfelt thanks; for the debt of love can never be paid, and the indebted one must remain a debtor for ever.

The past year has been a prosperous period; several fresh contributors appear in our columns, and their articles will speak for their authors. The 'Phytologist,' in her now mature age, does not condescend to commend herself, or, in common and proverbial parlance, to blow her own trumpet; she has become wiser with increasing years, and leaves the superfluous work of self-laudation to those who like it. A good word may be offered for the past year without incurring the slightest suspicion of sycophancy or of officious obsequiousness.

Our anticipations of the new year are that the coming time will be no worse than that which is now to be numbered with the past; or, in other words, may the future be as good as its predecessor.

In this article, named "An Address," the liberty has been granted, or taken for granted, of explaining certain matters which have occurred during the previous months; also, of answering certain questions which naturally arise out of the

relations existing between the Editor and the contributors and readers. Two queries have been submitted since last Midsummer, and to both of these answers will now be given. The first question was, "What will become of the 'Phytologist' after the retirement of its publisher from all connection with the publishing and bookselling business?" and the second, "Are the proprietors of the Magazine taking steps either to enlarge it or reduce its price?" Both of these questions will be most conveniently answered on the not uncommon custom of last come, served first.

It is quite true that the paper tax or duty has been recently repealed; but are our readers aware of the insignificance of one penny-a-pound tax on the financial interests of the 'Phytologist?' They may ascertain it from the following statement:—Twenty pounds of paper will suffice for the letterpress of 240 copies of the Magazine, and if the publisher received all the benefit of the remission of duty, the saving would be only 1*s.* 8*d.* on the paper used for 240 copies; but let the saving be estimated at a couple of shillings or even half-a-crown, the gain would be say 2*s.* 6*d.* at the very utmost, while the loss if 1*d.* less was charged for the work, would be a pound on 240 copies; if the price was fixed at 2*d.* less, the loss would be two pounds; if at 3*d.* less, three pounds. On 240 copies the loss would be one, or two, or three pounds respectively, according as the price was reduced one penny, or twopence, or threepence; while the other side of the account would show only a saving of less than a couple of shillings.

If the price were to be reduced one-half, the circulation would not be materially increased: the fate of the 'Botanical Gazette' settled this, till then, doubtful point. If the 'Phytologist' were to be sold for twopence, its sale would not be greatly extended, because the readers who like its contents are few. When the botanists of Great Britain amount to thousands, a cheap botanical periodical may exist; at present it is impossible.

To the first question, "What will be the fate of this Magazine when its publisher relinquishes his trading business?" no very precise answer can be given. Time alone can discover what will be the future destiny both of books and authors in the darkness of futurity. A rough guess is all that can be given to so ticklish a question.

The Editor assumes from the following facts, that there is no inconsiderable share of vitality in the 'Phytologist.' In the first place it has been a favourite, otherwise it would long ago have disappeared, and have been consigned to the limbo of unsuccessful speculations. It has been a prominent object on the small stage of botanical activities upwards of twenty years. Again, the contributors are gradually increasing, a sure evidence of growing prosperity, because they supply both the facts and the pecuniary assistance. Under the present management the sale has been more than doubled, and the contributors have multiplied more than a hundredfold.

From experience it may safely be inferred, that no exclusively botanical publication, unless issued at a high price, can be a self-supporting adventure. The publisher who speculates on a greatly enlarged circulation by diminishing the price, will act as imprudently as a knee-buckle merchant of the last century, who, as stories tell us, sent a large consignment of buckles, universally used in this part of the kingdom, to the regions lying west and north of the Grampian Hills, where, he had been told, that there was not one dealer in this article of general wear. He learned to his sorrow, that though he had the market solely to himself, there were no buyers, because the people there dispensed with the garment for which knee-buckles were manufactured.

During the last thirty years several serials, with botany for their sole or chief object, have been fairly started under tolerably favourable prospects; but their career was not of long duration. With the view of increasing our sale and lowering the price, the following is thrown out as a hint to our subscribers, and especially to our correspondents, with this proviso, that it cannot be undertaken until the present publisher has entirely ceased to have any concern in its publication.

The Editor's proposal is to enlarge the sphere of the 'Phytologist,' or, in other terms, to make it a comprehensive digest of the progress of the kindred natural sciences; for example, to combine zoology with botany. There are several of our contributors, zealous friends of the 'Phytologist,' who could, and probably would, aid us in supplying facts about animals as well as about plants. It is probable that our

circulation might be extended by this proposed extension of our plan; and in this event more letterpress might be afforded for the same price.

As above intimated, this cannot take place till the retirement of the worthy publisher, who entered into an engagement with the former proprietor not to admit any zoological articles into its pages, on the express stipulation that no botanical matter appeared in the 'Zoologist;' an agreement which has, on one side, been but indifferently fulfilled.

Many remarks, queries, notes, and reflections, have reached both our eyes and ears on a subject which has given rise to much discussion, during at least a space of two years, viz. on the mutability of species, or, in more qualified terms, on the effect of natural selection in modifying what are usually called species. The ancient doctrine, sanctioned by the high authority of Linnæus, that only a *single* plant of the more complete kinds, and a *pair* of the less complete, were originally created, has been again broached in these our times. From this assumed hypothesis, and from other well-known facts, it has been asserted that varieties are incipient species; and that aberrant forms by a kind of accumulative action will gradually become distinct from their original parents, and grow into new and independent species, genera, and orders.

Much of the ingenious speculation bestowed on this new doctrine is based on the acknowledged distinction existing between domestic and wild animals, and cultivated and spontaneous plants. It is further assumed that all plants were originally wild, and that all tame breeds of cattle, sheep, horses, pigs, etc., were once *feræ naturâ*, natural wild-beasts; also, that the human race was once in a similar condition, and that thousands of years were spent in the selective operations ere a perfect man and woman were evolved, by the continuous exercise of these wonderful secret selective powers.

The Editor most humbly begs all his correspondents who have sent him remarks, queries, and memoranda on this mysterious subject, to remember that the 'Phytologist' is not the proper medium for ventilating theoretical views; it is merely a repository of facts, though it is sometimes entrapped into the maze of speculation, probabilities, and possibilities; and its pages are sometimes made receptacles of learned lumber, a state

of things unavoidable in our case, where readers and authors are almost synonymous terms.

From the very admissions of the ingenious inventor of this new doctrine, it may be inferred that his theory of the origin of species is deficient in some of the constituent elements of vitality. If we be hopelessly and utterly ignorant of the mutual relations of all organic beings, as he admits (see p. 78), is it probable that we shall arrive at any satisfactory conclusions about their origin, which ascends so far into the geologic periods of unknown ages. The theory may amuse the speculative, dreamy classes of mankind, who are pleased with the paradise of fools, and who cackle and crow when they have found only a mare's-nest; but it has no charm for two very influential orders,—neither for the practical and popular, nor for the philosophic mind. To the former it will be repulsive, because it is useless; it wants the utilitarian element; and to the latter it will seem chimerical, because it is not well founded; the assigned causes are not sufficiently causative of the well-known effects.

The theory has another weak side; it is a butt at which the wits throw their slight but sharp shafts of ridicule; and it is repulsive to the theologian, who deems it only a fresh development of pantheism.

Another paragraph or two, and these personal matters will be dismissed for the present. There was a hint conveyed, in friendly enough terms, that the Editor now and then takes the liberty of giving in our vernacular the equivalents of certain classical (Latin) scraps, with which some correspondents illustrate and embellish their compositions. A friend has intimated that these English versions are uncalled-for and unnecessary; moreover, that they convey a sort of reproach, or insult, or slur, on botanists, who ought to get credit for the ability of translating for themselves. It is far from our intention to give offence to any, and least of all to the learned portion of our readers, who honour us by perusing our lucubrations. The *amende honorable* is hereby tendered to each and all the botanists who conceive that any imputation, either avowed or implied, has been cast upon their learning.

While humbly tendering our apology for the past, we take the liberty of pleading, in justification, that there are readers of the 'Phytologist' who do not understand Latin, for a good reason:

they never learned it; and it would be of little use to them if they had. In the first place, our lady-readers are not expected to possess this accomplishment; and we have the happiness of informing our friends that this class is increasing; and for their sakes it is our duty, as it is our pleasure, to suffer nothing to be published which it is probable *they* would not understand. Again, there are some of our very staunchest friends who can distinguish minuter shades of distinction in plants than those which divide the Cowslip from the Primrose, but who are not classical scholars, *i.e.* could not construe a line of Virgil or Homer to save them from the gallows. It would be absurd to believe that they possessed such qualifications.

The Editor cannot afford, even if he had the inclination, which he has not, either to tantalize, disappoint, or alienate, his best friends. With all deference to his learned readers, to whom he wishes daily accessions both of wisdom and knowledge, he must indulge his good-nature so far as to endeavour to convey to every reader the meaning of what has been published, on his responsibility, for general information, or satisfaction, or pleasure.

It is hoped that this explanation will be satisfactory, and that henceforth no offence will be taken at our doing what many of our readers would consider a sort of benefaction. Be this as it may, when a scrap of Latin comes to us from any quarter whatever, it will receive the best translation which we can afford; but it is hoped and desired that there may be as little occasion for the exercise of this right as possible, and that the writers will generally be content to write their reflections in plain English. Fair warning is now given to all who write in this piebald fashion that their learned quotations will be always accompanied by words which convey the sense in our mother-tongue.

The first important fact recorded in the simple annals of the past year, and to be here briefly recapitulated, is an account of a new station for *Arenaria balearica*. The locality is in Dorsetshire, far from the Scottish place where it was first observed, but quite as likely to be a genuine one as the Perthshire station. The authority is that of the noble owner who has known the plant there for almost a quarter of a century.

Perhaps the most interesting discovery of the year was that of *Verbascum thapsiforme* in Kent, not far from Ashford. For a

notice of this event, and of the plant itself, see 'Phytologist,' vol. v. p. 362.

The confirmation of the genuineness of the station for *Maianthemum bifolium*, by Mr. James Backhouse, has given much satisfaction to our readers, as a final settlement of one of the troublesome questions that arise about the nativity of certain plants.

The number of foreign or stray plants naturalized and semi-naturalized, and hitherto unrecorded as growing spontaneously in this country, is gradually increasing. We never observed so many in any single year. Their names and origin, with their other accidents, viz. their history, multiplicity, locality, etc., will be forthcoming subjects for the coming year. For the present, it is better, in this review of our annual proceedings, to enter here only the prominent subjects which have been already submitted to our readers.

The list of local botanists, so long a *desideratum* among many lovers of the innocent and useful art of *simpling*, is now an accomplished fact on which we have the pleasure of congratulating our readers as a progressive movement in the right direction. A confident expectation is indulged that this is only the precursor of further advances, and that their example will stimulate the botanists of other counties, and especially of the South, to follow in the wake of the intelligent and enterprising energetic men of Lancashire, Yorkshire, and Cheshire; that is, give the Editor authority to publish their names, as being willing to assist strangers in their botanical researches. We hope, for the general interests of humanity, which may be greatly promoted by these and similar pursuits, that the botanists of the north of England will increase tenfold, and that their goodwill may never be less.

We have very little to enter here under the head of botanical publications. As usual, the most important work on vegetation has been the 'Phytologist.' Sowerby's 'Wild Flowers,' and the same distinguished author's work on Grasses, have been completed and sold, and a new edition of the 'Wild Flowers' is now issuing. Vague rumours of a re-issue of 'English Botany' are abroad, but nothing definite nor even tangible has reached us.

The following hint is submitted to those who are fortunate enough to possess a microscope, or rather, who have taste and tact to make a good use of it.

When the 'Phytologist' made her first appearance, microscopes were not so common as they are now. Hence we have never had more than a scantling of physiological matter. We are not very desirous of getting communications on structural botany, or about the anatomy of vegetation, because this is generally to be met with in good elementary introductions to the science. Facts relating to the economy of living objects remain still to be discovered, and these are of never-failing interest. The phenomena of life, whether in sentient or non-sentient objects, is exceedingly attractive and very instructive both to botanical and general readers.

Again, another word to all readers, whether microscopists or only good practical observers unaided by these excellent scientific auxiliaries. Facts about the uses of plants, for example, in diet, or in medicine, or in clothing, or in the arts, or in any manufactorial process, will be thankfully received and duly honoured. The 'Phytologist' professes the creed of universal utilitarianism, and she solicits contributions from all quarters and on all subjects connected with the Vegetable Kingdom so far as these are subservient to the necessities of man, and are contributory to the gratification of his tastes, and to the enlargement of his intellectual and moral faculties.

Our strong point always has been, and probably ever will be, *local botany*, and we are not afraid of exhausting the subject. Is there any equal portion of the earth's surface which has been more diligently searched for plants than England has been? and there are none who know so well how much remains to be done as those who are best acquainted with the botany of their native land.

We have another favour to ask, in addition to the foregoing humble request, to be supplied with as many facts on economical, physiological, and local botany as our obliging friends can let us have with as little trouble to themselves as possible, viz. examples or forms of certain species or alleged species of plants, for purposes which are now to be stated in detail.

In the first place, *Œnanthe peucedanifolia*, Sm., or *Œ. silaifolia*, Bieb., is wanted. The plant so called, in some parts of England, approaches too near to what is now universally (?) named *Œ. Lachenalii*, to be always distinguishable from the latter-named species.

We are not afraid to give currency to certain doubts which are humbly entertained and diffidently divulged, that our older botanists, and one of the moderns, at least, may have been right in calling our three assumed species of *Œnanthe*, viz. *Œ. pimpinelloides*, *Œ. peucedanifolia*, and *Œ. Lachenalii*, by the first name. This is only sheer surmise, for the matter is undecided; and it probably will remain in this doubtful state after a series of examples have been carefully compared. But by undertaking this labour, a step will be taken in the right direction, and our readers will have the benefit not merely of the result of this comparison, but they will have the opinions of the *élite* of the leading collecting botanists of England.

There is another object looming in the distant future, viz. a monograph of the British genera and species of the Order *Potamacæ*. We may say ditto to that or those of *Chenopodiaceæ*, that is, if our readers will supply us with a sufficient series of examples, or even of the most critical and proximate forms of plants belonging to either of the Orders, or to both.

We have no more requests to make, nor any more explanations to submit, only this one, viz. that our readers, correspondents, and contributors, will receive our assurance that we are their most obedient servants, and that we are most grateful receivers of all their favours, honest counsels, and cheering encouragements. For their goodwill and active support we hereby tender to each and all the expression of our joint feelings, joint thanks, and gratitude, and wish them all a happy and prosperous new year, assuring them that our gratitude will not lag behind their judicious efforts in our behalf.

THE PLANTS OF HOLY ISLAND.

By W. R. Alnwick.

Though the situation and extent of Holy Island are doubtless known to most readers of the 'Phytologist,' perhaps a short introductory description may be useful.

The island is about three miles long, and a mile and a half wide, and of a very irregular outline. Its entire area is one thousand four hundred acres. "Its surface," says Raine, "is

flat, for the only conspicuous eminence is the Beblowe, on which the Castle sits like a crown. The Heugh is a rocky elevation along the southern shore, overlooking the town, and the Links (about nine hundred acres) heave up with rounded knolls of sand."

There is a small lake (the Lough) near its eastern shore, occupying about five or six acres; but it appears to be gradually diminishing in size, or filling up with decayed vegetation. If such is the case, several interesting plants will disappear with it, and render the island less attractive to the botanist.

About six hundred acres of the island are under cultivation; the remainder is occupied by the "Links," which are mostly flat, but with a few round hills here and there, and are entirely composed of sand, interwoven with the Sea-Bent, *Arundo arenaria*, etc., whereby the loose soil is consolidated. Off the south-western extremity there is a small rocky islet, called St. Cuthbert's Isle: at high-water it is entirely insulated, but at low-water it is accessible by a low ridge of rock covered with seaweed.

To the mere pleasure-seeker, Holy Island offers but little attraction, but to the antiquary it yields interesting objects, in its old ruined Monastery, which was one of the most celebrated in the North, and in its picturesque, weather-beaten Castle, which is yet in a good state of preservation.

The naturalist, especially the botanist, here finds a rich, though limited field for research, and enough of the beauties of Nature to give him the most heartfelt satisfaction, when he has diligently contemplated the various objects that are scattered round him on every side. "To the eye thus at freedom, Lindisfarne becomes the greenest spot in our prospect, and the most interesting field for the naturalist's researches. It was the mother of our Churches in the north, the nurse of our religion, and of much of our civilization; and you may wander amidst its ruins with the same reverential feelings that moved and agitated Samuel Johnson at Icolmkill."

At low tide the water between the island and the mainland is so shallow, though it is never quite dry, that people are in the habit of crossing on horseback, and also by wading. The road across the sands is six miles in length, and leads to the northern extremity of the island. Further south a point of land juts out, approaching to within two miles of the island. A passage can

be readily obtained by boat.* It was by the latter route that I visited the island last July (1861); and if the reader will kindly accompany me, I will try to describe the interesting objects which were presented to my view, and which are now reproduced for his delight and information.

The first point of approach is the little isle of St. Cuthbert. About half an acre of the islet is covered with a scanty vegetation; and though rarities are scarcely to be looked for on so barren a spot, yet I saw a small quantity of *Artemisia maritima*, and an abundance of the Sea Lavender (*Statice Limonium*). The foundations of the little chapel, formerly inhabited by the patron saint of the island, and still traceable, are objects of great veneration to the fishermen, one of whom told me, as I was crossing in his boat, that the bones of the saint could find no rest there, he was so much disturbed by their oaths from the adjacent landing-place. They were exhumed, he said, and buried at the opposite side of Holy Island, but the change of place brought no peace; for the sea-fowl were as clamorous and disturbive as the fishermen; so the brethen of the monastery were obliged to transport the holy relics to Durham.

Leaving St. Cuthbert's, I proceeded along the treacherous slippery ridge of rocks that connect the islet with the island, and was glad when I placed my feet on the greensward again. I was not long in making important captures, which consisted of an abundance of *Convolvulus arvensis* and *Glyceria maritima*, also *Carduus Marianus* and *Silene noctiflora*. Proceeding through the town, I noticed the two commoner Mallows, *Malva sylvestris* and *M. rotundifolia*, occupying their usual habitat by the wayside. A little patient search of some waste ground was also rewarded by a few small plants of *Senebiera Coronopus*.

Winding my way through the town, I soon reached the ruins

* When the illustrious botanist Ray visited the north of England in 1661, he heard it confidently asserted that the ebbs are so great on the Lord's-day that a man might go over the narrow strait in the morning and return in the evening dry-shod. Is this legend still current, or has it been contradicted by long experience?

When Ray, with his companion Willisel, visited Holy Island ten years later, in 1671, on a simpling tour, as he says, they found the following plant, viz. *Asperugo procumbens*.

See Memorials of Ray (Itineraries), p. 151 *note*: "In the Holy Island I found growing *Aparine major* Plinii; *Asperugo procumbens*, Linn. Upon the walls of Berwick, by the seaside, *Erysimum latifolium Neapolitanum* (*Sisymbrium Irio*, Linn.)."

of the Priory. Though a short description of these might be interesting to some readers, it would be out of place here; therefore I shall content myself with indicating the plants I gathered.

Among the ruins, and on the waste ground near them, was a quantity of *Salvia Verbenaca;* and in the adjacent fields I saw *Carduus Marianus* and *Carlina vulgaris*, both apparently wild. *Asperugo procumbens* grows in profusion on and about the ruins of buildings on the Heugh. It was seen there by Ray now nearly two hundred years ago; yet, notwithstanding its abundance, it remained unobserved till it was re-discovered in 1850.

I next made for the rocky ridge that lies between the town and the sea, called the "Heugh," and found many plants that are not universally distributed over the island, viz. *Glyceria rigida, Hordeum murinum, Plantago maritima, Sagina maritima*, and others, grew on the grassy banks, as did *Vicia lathyroides*, but it had gone out of flower long ago. *Silene maritima* was growing in the crevices of the rocks facing the sea, and *Sedum anglicum* occupied similar localities. The coast between the Heugh and the Castle is low and rocky; in proceeding along it I saw *Trifolium scabrum* growing in some of the crevices, but in small quantity; the delicate little Trefoil, *T. arvense*, decorated the banks in many places.

As I approached the Castle, I saw patches of *Allium oleraceum* in several places, and some straggling plants of *Cynoglossum officinale* and *Hyoscyamus niger*.

Several of these plants occur again on the rock on which the Castle stands. *Sagina apetala* grows on the walls, and on the summit *Echium vulgare* stands conspicuously. *Erigeron acris* has been reported to the north of the Castle, but though I searched diligently, I was unable to discern any trace of it. In going northward through the cornfields, I found *Silene noctiflora* growing as a weed. Indeed the "weeds" appear to thrive amazingly. One field is brilliant with the Poppy, *Papaver Rhœas; Anagallis arvensis* luxuriates in another; and I crossed a third that ought to have produced a crop of barley, but one might have imagined it had been sown with *Carduus arvensis* and *Lycopsis arvensis*. It is here that the Lough is situated. I made a careful inspection of it, and saw the following plants, in more or less abundance, round its margin:—*Potamogeton pectinatus, Chara hispida, Veronica Anagallis, Alisma ranunculoides, Ranunculus*

aquatilis (or one of the multitudinous progeny that give so much labour and so little satisfaction to those who labour in this barren field), *Sparganium simplex*, *Menyanthes trifoliata*, *Juncus cœnosus*, *Littorella lacustris*, *Polygonum amphibium*, and many more of less note. A walk over two or more fields brought me to the bounds of cultivation, and I arrived at the Links, which present some diversity in their productions, or yield a few species which I had not previously gathered.

As before said, in describing the island, the Links, which occupy so large a portion of its area, consist of rounded hills of sand, which are also covered with *Arundo arenaria*. *Carex arenaria* also has a good footing, and among other Grasses I saw *Phleum arenarium* and *Festuca rubra*. In passing one of the banks I was attracted by some fine examples of the Rest-harrow. I had almost passed it with merely a passing look, taking it for the commoner species, *Ononis arvensis*; but on possessing myself of a sprig, I saw at once that it was *O. antiquorum*. This simple circumstance, at the same time, showed me the value of *accurate* observation in botanical rambles, for if this is not attended to, many awkward mistakes may be made. *Astragalus hypoglottis*, though not in flower, was still visible in many places, and the same may be said of *Cochlearia officinalis*.

By the way, the rarer *C. danica* grows on the Farne Islands, which lie a few miles to the south of Holy Island. In many parts of the Links there are depressions, which are usually damp. The most important plants I found in these places were *Samolus Valerandi*, *Blysmus compressus*, and *Lycopodium selaginoides*. *Gentiana campestris*, *G. Amarella*, and *Erythræa littoralis* appear to occupy as much ground as they can, for I found plants of these species here and there all over the Links, but always thinly scattered. *Rosa spinosissima* and *Salix fusca* grow side by side in various parts all along the coast; the former, indeed, is plentiful in many parts of our Northumbrian shores, but Holy Island is the only locality in our county for this Willow that I know of.

At the north-western corner a long point juts out towards the opposite shore, forming about half the length of the island, though very narrow; and it is so similar in character and productions to the portion I have last described, that it will not repay a journey along it; I shall therefore cross to the western shore, and proceed southward.

Before doing so, I may mention a feature that is certain to be noticed by a stranger; that is, the absence of trees. The few trees that are to be seen are only in the vicinity of the houses, and have evidently been planted. From this it may be inferred that the island has a very bare appearance; even the fields are generally divided by "dykes" of earth or stone, not by hedges.

The south-west shore is generally flat and muddy, and appears congenial to the Chenopods, for there they muster strongly both as species and individuals. This Order is represented by *Chenopodium maritimum, Atriplex patula, A. littoralis, A. rosea, A. erecta, Salicornia herbacea,* and *Salsola Kali. Chenopodium botryoides* is reported from this locality by Dr. Johnston, who quotes Mr. Babington as his authority. It would have been more satisfactory if the Doctor had seen it for himself, for then two witnesses might have been adduced for its existence in the island. I did not see it, but I have gathered what I believe to be that plant in the vicinity of Alnmouth. Not far from the shore, I met with some fine examples of *Blysmus compressus;* plenty of them too. *Cakile maritima* also grew among the Chenopods. Further from the edge of the water many parts of the beach were covered with *Glaux maritima, Zostera marina,* and *Arenaria peploides.* I also met with the Sea Wheat-grass, *Triticum junceum,* as well as others that I had previously seen. A short walk further along the shore, past the harbour, and I arrived at the town from whence I started; a tourist may obtain rest and refreshment, but will find little to interest him in it; but if he has been as successful in herborizing as I was, this alone will afford sufficient gratification.

HERBARIA SALE.

The following lots of interesting specimens of plants collected by botanists and travellers from almost all parts of the world, were sold at Mr. Stevens, King Street, Covent Garden, on Saturday, the 7th December, 1861.

Lot 12. A large quantity of British and exotic Flowering Plants and Ferns, collected by Mons. Gerard, several thousand, all named (of *Dentaria bulbifera,* Harefield, there are numerous specimens), six bundles.

This M. Gerard was gardener to the Royal family of France when the first revolution broke out. After his Royal master lost both crown and life, he fled over to England, and lived in humble circumstances, and for many years collected plants for botanists, and medicinal herbs for sale. At his death, in 1840, his enormous stock-in-trade was dispersed. This lot formed a portion of his collection, and sold for one pound.

14. Ferns. The genus *Asplenium*, illustrated by several hundred specimens, from most parts of the world, all named and localized, including sub-species, varieties, and some few duplicates, £1. 10*s*.

15. The genus *Aspidium*, similarly illustrated, £1. 4*s*.

21. *Polygala*. The genus *Polygala*, extensively illustrated by several hundred specimens from most parts of the world, all named and localized, £1. 3*s*.

42. Rare British (chiefly Essex), ex. herb. Christy, 4*s*.

46. Portugal. Dr. Welwitsch's plants of Portugal, a fine set of plants, all named, and in the best possible condition, about three hundred species, £1. 3*s*.

61. Plants collected by Mr. Edward Forster, chiefly Essex, 5*s*. 6*d*.

62. Plants, various, by the same botanist, 4*s*.

71. British plants. A large number of rare and interesting British plants, chiefly collected by Edward Forster and his friends, 5*s*. 6*d*.

72. A collection of duplicates of British plants, various, 3*s*.

90. Buckley's plants of Alabama, U.S., and neighbouring States, about three hundred species, all named; one bundle, 7*s*. 6*d*.

91. A collection of dried plants, from various parts of the world, and from noted botanical gardens, nearly all named, many with notes in the handwriting of the late Professor David Don, Mr. A. B. Lambert (in whose herbarium they formerly were), and others, in all about a thousand fastened down on herbarium paper, in five large bundles, £1. 9*s*.

103. Edward Forster. A very large number of interesting and rare British plants, collected by Mr. Forster and his brothers, during their botanizing journeys, or communicated to him by his friends; the most of the tickets bear his own autograph, and here and there interesting notes and criticisms. Many of them are the very plants from which the drawings in Sowerby's 'English Botany' were originally made. £1. 2*s*.

150. A very curious old herbarium, one folio volume; apparently collected by some Dutch botanist of note. It contains plants from various sources, but principally from the Botanic Garden at Leyden (?). The tickets are difficult to decipher, but the dates thereon are plain enough: 1634, 1635, and 1636! There accompanies this botanical curiosity a very interesting letter (to its former possessor, the late Dean Buckland) by the Rev. Gerard Smith, partly describing it. This volume contains *Orchis hircina* and numerous other rare specimens. Although in a very poor state, yet, such

as it is, it affords a most interesting relic of some early botanist's labours. The dates on the tickets, the handwriting, and other circumstances, appear to point to the elder Tradescant as the collector and owner of this, I suppose, the very oldest herbarium now existing, certainly the oldest I have ever seen. This lot was purchased at the sale of Dr. Buckland's library, 16*s*.

194. Welwitsch's Plants of Portugal, an excellent set of the second section (Estremadura, etc.), above four hundred and fifty species, in the best condition, 17*s*.

195. British, rare and interesting, collected by Babington, Borrer, Christy, and others, 2*s*. 6*d*.

196. Miscellaneous, chiefly British (1), and two other bundles, Botanic Gardens, Strasbourg, etc., three bundles, 4*s*.

197. European, mostly rare British, 3*s*. 6*d*.

198. Autographs. A collection of twenty-five botanical pamphlets, each of which bears a presentation inscription in author's own handwriting, 5*s*. 6*d*.

199. A similar lot, 3*s*. 6*d*.

200. Ditto, 3*s*.

201. Ditto, 6*s*.

202. Twelve autograph letters or memoranda of distinguished botanists, Endlicher, etc., 4*s*.

203. Twelve ditto, Steudel, etc., 4*s*.

204. Ditto, Sprengel, etc., 2*s*. 6*d*.

205. Ditto, Martius, etc., 3*s*. 6*d*.

206. Ditto, Fischer, etc., 2*s*. 6*d*.

The publication of the sale and the prices of the above few lots of botanical specimens will be subservient to two purposes: in the first place, they will show our readers that such things are so utterly worthless, as marketable commodities, that the sum realized by their sale would not pay for the labour, time, and paper necessarily spent in preparing them for the auctioneer. There were about two hundred lots at this sale, some larger, some smaller than the examples here reprinted, and on an average they did not fetch above a penny for each species, duplicates and mounting included. The paper to which they were attached would have cost more originally, without taking into account the charge for work and labour, than the sum realized by their sale.

Those who want specimens of plants, both British and Foreign, may have their wants supplied by a very moderate expenditure.

The second object is to inform collectors generally, whether

they belong to the commercial or the scientific class of *simplers*, that their trouble in collecting, drying, pressing, arranging, packing, and distributing, either to friends or customers, is not followed by an ample remuneration. Our reader's special attention is solicited to the article 195, wherein he may learn that a parcel of rarities, comprehending the combined collections of three eminent botanists, whose names are published as a guarantee for the genuineness of the articles, sold for half-a-crown; and there are other contributors to enhance the value of this lot, but they are probably not so well known, or are of a humbler social grade. We need not ask what they think such a parcel should have sold for; as Hudibras, or somebody else, says,—

> "The honest price of anything,
> Is just as much as it will bring."

But probably they will say that the collections of great men are not always objects of great estimation.

Finally, it is to be hoped that the time-honoured practice of the donor's attaching his name to his gift, will never be discontinued. *It* tells us (the ticket is meant by *it*) to whom we are indebted for overstocking the market; and also that the commercial botanist is not the only one of the brotherhood who has helped to make plants scarce and specimens cheap.

KENTISH BOTANY.

Memoranda of a few Hours' Botanizing on Barham Downs, and about Broome Park, near Canterbury.

To have travelled from London to the ecclesiastical metropolis of England, in the days even of fast coaches, and to have returned home the same day after transacting a little business, would have been deemed a feat worth relating. By the facilities of railway locomotion, it is an easy journey to south Kent, either to Folkestone, Dover, or Canterbury, returning home to dinner.

The botanist who lives in London may have his breakfast comfortably before starting, go to the station about eight o'clock, and reach his destination, say Canterbury, by ten o'clock or half

past ten; thus leaving eight or nine hours for his researches, and ample time for his return.

The writer of the following memoranda of a journey to Canterbury on the 2nd of July, offers the readers of the 'Phytologist' the result of his experience of the pleasures and advantages of similar excursions.

Two are better than one, both for counsel and for action; and therefore the use of the plural pronoun is not only justifiable but necessary; in a word, to cut short needless explanations, *we* left Canterbury about five or ten minutes past eleven, and walked along the Dover road through the pretty village of Bridge, (all the villages here are pretty,) and over the racecourse (Barham Downs),* onwards to the place where the Folkestone road branches off from that to Dover. On the right is Broome Park, which was to be the utmost extent of our journey.

Barham Downs are about four miles from Canterbury and they extend about four miles to the south, occupying the summit of the chalk hills, which extend from this ancient city to Dover, the most ancient port of Kent. The scenery on the right hand is beautiful, even in this beautiful part of England. There is a series of parks of noble dimensions, and abounding with first-rate trees, and turf of the richest herbage and intensest green.

The noticeable plants on the racecourse were what are usual in similar localities. The Grasses were chiefly *Brachypodium pinnatum, Avena pratensis, Koeleria cristata, Festuca ovina, F. duriuscula*, etc. Among other plants, the little and elegant species *Asperula cynanchica* abounded; *Spiræa Filipendula* was not scarce; and the whole Orchid family was represented by a few solitary and small examples of *Orchis pyramidalis*.

At the borders of cornfields, a few miles along the downs, *Cerastium arvense* was gathered, and among them some very dwarf examples, which we thought might, where none better were forthcoming, supply the place of of *C. strictum*.

* Barham Down, or Boarham Down, was so called by our Saxon progenitors when it was better wooded than it is now. It was a favourite resort of wild swine, animals which afforded noble and valuable game to our athletic forefathers. "Barramdowne," as Lambarde calls it, "in the Saxon Barhamdune, the hill where the bores doe abide," is a spot of historical importance in the early annals of England. Here Julius Cæsar reviewed his army, and marched thence against the Britons. Here Philip the king of France encamped his host, prepared to avenge the Pope, who had been offended by John; and on these hills in the Barons' war the Earl of Leicester mustered his host against King Henry III.

We missed *Hippocrepis comosa*, not entirely, but the myriads which cover some steep hangers on the North Downs about Guildford, Shere, and Dorking, were not here observable. It appeared on the roadside, but not in great abundance.

On the slopes and hangers beyond Broome Park, in the direction of Elham, an amazing abundance of certain Orchids grew, one of which, *Herminium Monorchis*, abounded on both sides of the valley a little beyond Broome Park, towards Elham. It was most abundant on the south-east slope, where it grew in scattered patches, spread over many acres. Several of the specimens were from nine to twelve inches high.

Gymnadenia conopsea was equally plentiful on the same sloping pasture field, where the Bee Orchis appeared only few and far between.

In Canterbury there has recently been established a botanical and floral society, and these florists are so zealous collectors,—I will not say rapacious,—that the race of some of the rarest plants, especially of the Orchid family, is in imminent danger of being speedily extirpated. It is very much to be regretted that the leading members of these societies are so forgetful of the claims of posterity.

An open space on the downs, between the place where we were and Elham, was pointed out to us as the station of the Spider Orchis, but whether of the early or late species, we did not ascertain. This fine tract of high ground between Canterbury and Dover, or on the Folkestone branch, is well worth the notice of botanists. It has not had its fair share of attention, though it is celebrated for its fine open and diversified scenery. Its botany is but little known.

The old Roman road, from Hythe to Canterbury, which passes through Elham, is the locality for *Vicia sylvatica*, an outlying station for this fine sylvan species. A week or even a fortnight might be enjoyed here about the beginning or middle of June in backward seasons, making the little town of Elham the botanist's headquarters, and working round from this centre between Hythe and Folkestone on the one side, and Broome Park and Ashford on the other. A rich collection could surely be procured in this district, and British botanists might get reliable information about the productions of one of the richest districts in England, a part of the country at present comparatively unexplored.

The chief object of our visit to Broome Park was to see, not to collect Orchids, and in this object we were partially disappointed. We did not see many of the *rariores* (rarities), and of the *rarissimæ* we saw none.

Several reasons may be assigned for our slender success, besides the one above stated, viz. the reckless practice of non-botanical collectors; in the first place, as we were informed by a resident lover of Orchids, the pastures had been overstocked in spring, and in the early summer, a natural consequence of the scarcity of the fodder, occasioned by the protracted, severe winter. The excess of stock and the deficiency of pasturage contributed to the scarcity of the Orchid family. What may be the effect of a more than usually cold spring on the members of this family, we were not able to determine, but whatever may have been the cause, the rarer species were scarcer than usual during the spring and summer of 1861.

CATALOGUE OF PLANTS CULTIVATED BY COLLINSON.

Extracts from a privately printed Catalogue, and Brief Notes on some British and Foreign Plants which were cultivated in Mr. Collinson's garden at Mill Hill, Hendon, Middlesex.

The celebrated botanist and florist, Peter Collinson, lived at Mill Hill, Hendon, Middlesex, about the middle of the eighteenth century—upwards of a hundred years ago. This Catalogue was compiled by L. W. Dillwyn, and printed at Swansea in 1843.

ANEMONE PULSATILLA.—The following note is appended to this entry:—"Mr. Knowlton found millions of Pulsatillas growing everywhere in the grass,* from a mile south of Lancaster, on the way to Little Purton" (Hart. Coll. p. 3). This is a new fact for the botanists of Lancashire and the north of England, who could hardly have overlooked so conspicuous a plant, and one which appears when there are few other plants in flower.

* Mr. Knowlton was gardener to Consul Sherard in the earlier part of his life, and subsequently to the Earl of Burlington. He was a zealous botanist and antiquary. See Phil. Trans. vol. 45. He died in 1782, at the advanced age of ninety.

Is this fine plant entirely unknown in Lancashire and in the north of England? If this fact is not new to the botanists of Lancashire, it may be so to the learned author of the 'Cybele,' who names ten counties where the plant is reported to grow; but Lancashire is not one of them.

HELLEBORUS FŒTIDUS has the subjoined memorandum:—"*Mem.* July 27, 1757.—I went to R. Warner, Esq., at Woodford, Essex, to see his fine new Jasmine from the Cape. He showed me his thumb and fore-finger, so poisoned, swelled, and inflamed with much pain, from opening the greenish pods or seed-vessels of the stinking black Hellebore or Bearsfoot. It rose in blisters, but when the water was let, out the pain abated.—P. COLLINSON."

NYMPHÆA ALBA, var., of De Candolle. Letter, indorsed by Mr. Collinson,—"From my learned and ingenious friend, Doctor Dillenius, Botanic Professor at Oxford, who, with infinite pains and application, drew, and then himself engraved, his curious 'History of Mosses;' and besides that the 'Hortus Elthamensis' was all drawn and engraved by himself, not to be paralleled.

The following is the Doctor's letter to his friend Collinson:—

"On the small Water Lily which I found in shallow waters at Brockenhurst, in the New Forest, Hampshire, and brought home specimens.

"Dear Sir,—The Willow with opposite leaves is the 11 of Synopsis (Ray's), p. 448, and the Water Lilly is called *Nymphæa alba minor* by C. Bauhin and others. It is not a common plant, nor observed to grow in England but by Lobelius, but his direction is so large, that notice hath not been taken of it, for he says in his 'Adversaria,' p. 251, that it grows in slow and not too deep waters, as you travel from London to Oxford and Bristol. Lobelius can't be understood of the *Morsus-ranæ*, for he describeth that in the next page, and knew and distinguished plants very well. Mathiolus (Matthiolus) says that it grows in the lakes of Bohemia, and in his figure makes it a pentapetalous flower, which is wrong, and if there be such a flower nobody has seen it but himself. What most authors say of it they transcribe from Matthiolus, and their figures they have from that author, except the Hortus Eystettensis, where you will find both sorts very well figured in the part vernal, ord. 7, fol. 3. I find a specimen of it in Will. Sherard's collection, gathered

in the lake at Mantua, to which Mr. Ray hath put down that he never saw it before; nor have I seen it growing. You will in your next more particularly describe the places where you found it. . . .

"I am, dear Sir, your sincere Friend and Servant,

"J. J. DILLENIUS."

In Mr. Collinson's copy of Blackstone's 'Specimen Botanicum,' which had been presented by the author, the following memorandum, without any signature, has been pasted on the fly-leaf, and I believe it to be in Mr. Blackstone's handwriting, and to have been sent to Mr. Collinson some years before the work was published:—"I don't find the *Nymphæa alba minor* taken notice of in the Synopsis, fol. 368. . . . This rare plant I have twice observed. The first was on the north road from York, going over a stone bridge on the right hand, in a river, before one comes to Doncaster; it was then in flower, the beginning of August. The second time I met with it was in going from Lindhurst (in New Forest) to Brockenhurst. There is a watercourse at the entrance of the village, over which there are bridges, but it being dry weather there was no running stream, but the water stood in pools. In the pools I observed both the small and great Water Lilly: they were both in blossom, for the distinction was easily made, and the difference is pretty remarkable. August 10, 1739." By an additional note, the plant at Brockenhurst appears to have been again in flower on August 1, 1740.

ŒNOTHERA BIENNIS.—*Œ. rosea* and *Œ. pumila* were garden flowers in the eighteenth century. Several of them are now imperfectly naturalized in this country. *Œ. pumila* sprang up of its own accord in a garden in Chelsea, in the summer of 1861.

OPHRYS APIFERA.—Curtis, in Fl. Londinensis, wrote—"This with other Orchids was cultivated with great success by the late Peter Collinson, Esq. (whose memory will always be revered by every botanist), in his garden at Mill Hill. His method was to place them in a soil and situation as natural to them as possible, and to suffer the grass and herbage to grow around them."

OPHRYS MUSCIFERA.—*Orchis Myodes major*. "*Mem.* July 4, 1757.—Went to the Duke of Portland's, at Bulstrode; stayed to the 11th. In returning found the great Fly Orchis on the declivity of a chalk pit, in full flower, in Esquire Cook's

park, in the parish of Harefield, Middlesex; but there is one Miles, a parson, of Cowley, near Uxbridge, who is Orchis-mad, and takes all up, leaves none to seed, so extirpates all wherever he comes, which is cruel, and deserves chastisement" (p. 36).

ORCHIS HIRCINA.—*Orchis barbata fœtida,* Goat Satyrion. "*Mem.* July 1763. Miller's Satyrion, No. 2, now in flower in my garden; three feet high, above fifty flowers."

ORCHIS PYRAMIDALIS.—In the 'Daily Advertiser' for July 4, 1768, this Orchis appears in a list of plants stolen from Mr. Collinson, and there are memoranda of many imperfectly defined species sufficient to show that he possessed a large collection of hardy orchidaccous plants.

PULMONARIA VIRGINICA.—*Mountain Cowslip,* an elegant plant and very ornamental in spring (Hort. Col. p. 43). To the above there is the following interesting "mem.":—"Miller's sixth species (of *Pulmonaria*) was entirely lost in our gardens, but I again restored it from Virginia by Col. Custis; flowered April 13, 1747, and hath continued ever since a great spring ornament in my garden at Mill Hill." In another memorandum, written by the same hand, and dated May, 1767, it is recorded that "twenty-seven stems grow from one root." Miller says that this ornamental early-flowering plant was originally sent from Virginia by Banister, to the gardens of Bishop Compton, at Fulham.

Loudon, in his 'Encyclopædia of Plants,' says it was introduced in 1699, and further that *P. maritima, P. sibirica,* and *P. virginica,* are all elegant plants, and bear so great a resemblance to each other that they are by some regarded as varieties of one common species. They are choice spring flowers, but require some care in keeping; except where they are grown in a soil almost composed of sand. Is this fine species now obtainable in trade collections?

On RAMONDA PYRENAICA, a plant recently introduced to the notice of our readers in the 'Phytologist' for December, 1861, where the history of this fine species is briefly told, "it is the *Cortusa,* No. 2, of Miller's sixth edition;" and Mr. Collinson has there left the following memorandum,—"I have had it many years by the name of *Bear's-ear Auricula,* from its hairiness on both sides of the leaf."

RUBUS ARCTICUS.—"*Mem.* April, 1747. Raised from seed *R.*

humilis septentrionalium (*R. arcticus*), in Swedish, 'Aker Bar.' May, 1747. Dr. Beck, of Sweden, sent me the *Rubus humilis*, or *Chamæmorus norvegicus*. It makes a pretty show with its red flower, and produces ripe fruit."

Rubus Chamæmorus, *Chamæ Rubus*, from Sweden, thrives finely. "*Mem. Vaccinia nubis* (Cloudberry), *Chamæmorus*. In August, in the highway from Settle to Appletreewick, a little parish on the river Wharfe, as I went down a rugged rocky hill, I observed this plant growing in the clefts of the rocks on the right-hand side; it was then in berry. I took up some roots and planted in my garden, where it grew; but my gardener pulled it up for a common briar," p. 47.

Salix babylonica, *Weeping Willow*.—"*Mem.* Mr. Vernon, Turkey merchant at Aleppo, transplanted the Weeping Willow from the river Euphrates, and brought it to England, and planted it at his seat in Twickenham Park, where I saw it growing anno 1748. This is the original of all the Weeping Willows in our gardens.

"In July, 1765, I measured a Weeping Willow at Mr. Smelling's, at Godalmin, Surrey, of but fifteen years' standing. It measured six feet in girth, or two feet in diameter, and the height in proportion."

Loudon states in his 'Encyclopædia of Plants' that this Willow was introduced in 1692; but this early date is somewhat discredited by Mr. Collinson's account. It is very improbable that he should not have seen a tree so popular till more than half a century after its introduction. Loudon also states that the famous Weeping Willow in Pope's garden at Twickenham was an accidental growth from some rods used in a package brought from Spain. The poet perceived some signs of vitality in these twigs, and planted them, with the remark that they might possibly produce something which was not in England. This is not impossible, but Mr. Peter Collinson's "mem.," written at the time, is higher authority than the poetical remark.

Spiræa Filipendula.—"*Mem.* Mr. Brewer, from Bradfield, Yorkshire, sent me two roots of double *Filipendula*, lately discovered." And from another memorandum it appears to have been found growing wild near Pontefract, and "considered to be a great rarity."

Spiræa Ulmaria, flore pleno (with double flowers). This variety

appears to have been discovered near the north of England, and sent by Mr. Knowlton to Mr. Collinson in 1736.

SYRINGA VULGARIS, *Common Lilac.*—"*Mem.* Lord Petre was particularly fond of white Lilac, and his gardener sowed seeds gathered from the white-flowered variety of the shrub. He raised above five thousand plants that flowered in 1741; and of that number about twenty became white, the rest all blue" (Hort. 54).

It is inferred from the contents of this Catalogue, and from the 'Hortus Kewensis,' etc., that Mr. Peter Collinson contributed more trees, shrubs, and garden plants, to the stock previously in Britain, than any one botanist of the last century—more than all the botanists together? Commercial botanists (nurserymen) were neither so numerous nor so prosperous as they are at the present day, and the public botanic gardens have at no period added much to the fittings of parks, plantations, pleasure-grounds, and gardens. Private enterprise has made large additions to our stock of ornamental and useful plants. Dr. Pulteney, who passes a high encomium on Mr. Collinson as a benevolent and virtuous man, adds,—"In his time England received large accessions to exotic botany from all parts of the globe, to which no one contributed more than himself. Mr. Collinson died August 11, 1768, in the seventy-fifth year of his age" (Sketches of Botany in England, vol. ii. 275). There are further particulars of this worthy man and member of the botanical brotherhood, in the 'Biographia Britannica,' vol. iv. ed. 2, p. 34. In Dr. Lettsom's 'Memoirs of Dr. Fothergill,' there is a list of Mr. Collinson's papers printed in the 'Philosophical Transactions' and in the 'Gentleman's Magazine.'

In April, 1861, the writer of this notice of the catalogue of Mr. Collinson's plants, went to Mill Hill, not so much with the hope of gleaning any anecdotes among the residents of that retired hamlet in reference to so distinguished a resident, but rather to ascertain whether all memorials of him had perished in the place which he had rendered famous. The following has been obtained from an old correspondent:—"I remember that in 1831 I saw Mr. Collinson's gardener, then a very old man, for his master had been dead, at that period, upwards of sixty years. This man's descendants are still in Mill Hill, and carry on the nursery trade of their father and grandfather. The latter

was proud of having been once in the service of so celebrated a botanist. He was in possession of a few anecdotes about Mr. Collinson, and Mr. Salisbury, who lived at Mill Hill after it was left by the son of his employer. This is all I know about this famous amateur. I have only seen a man who had seen him, and had lived with him." The daughter-in-law of Mr. Collinson's gardener, now an aged but very intelligent person, had often heard her late husband's father speak of his early master. She was the only person in Mill Hill, so far as we could hear, who knew anything about Mr. Peter Collinson, or who had ever heard his name in connection with Mill Hill.

The estate formerly owned and occupied by him is the site of the Protestant Dissenters' Grammar-school, which has been established nearly half a century.

In a very few short, short years, every memorial of Mr. Collinson's reputation will have disappeared; his very name will be utterly forgotten in the obscure hamlet celebrated as the scene of his floricultural and arboricultural triumphs!

Sic transit botanicorum gloria,—Nothing lasts for ever, not even botanical fame.

ZETA.

Review.

The Forests and Gardens of South India. By HUGH CLEGHORN, M.D., F.L.S. London: W. H. Allen and Co.

This valuable work, on the forests and gardens of South India, treats chiefly on the commercial value of timber, its cultivation and perservation, and is mainly a series of Reports made to Government by the conservators, inspectors, and other officials, extending over a period of four years, viz. from 1857 to 1860 inclusive. There are also numerous Reports from overseers, collectors, and others, acting under the authority and by the direction of the Conservator.

In times anterior to the British rule, teak, blackwood, rosewood, and sandal-wood, were rigidly protected, like some trees in Scotland, where the law permitted the landlord to punish

with severity the stealers of some trees, while they might cut others with impunity. The old rhyme runs thus,—

> "The aik, the ash, and elm tree,
> The laird may hang for all three;
> But for saugh, hobburn and bourtrie bush
> The laird may flyte, but mak naething o't."

The object of the British Government, which is now supreme in India, is the preservation of all sorts of timber, and both fruit and fuel trees, for the supply of the governmental departments, naval and civil service, erections, railroads, for great public works, and for the requirements of the ryots or cultivators, and for the supply of firewood to all classes.

The Government and the ryots alone will be henceforward permitted to cut and carry away wood *ad libitum* (at their pleasure).

The space at our disposal will not permit us to give a detailed account even of the contents of this work. Even if we could, they would not be of such interest to our readers as to warrant their being printed in this miscellany. We may have time hereafter to select a few notes, and for the present this work is heartily commended to all who are concerned in the prosperity of India, the most important dependency of the British realm.

We have much pleasure in reprinting a single quotation from the Report of Mr. William New, formerly one of our correspondents, and now in the service of the Government of India. It is on the germination of seeds. (See 'Cleghorn's Reports on the Forests and Gardens of South India,' p. 44.) "Mr. New, superintendent of the Lall Bagh garden, Bangalore, has raised a large number of seedlings in a nursery, and finds the seeds germinate readily if sown within a fortnight after removal from the tree; but they do not bear carriage well to a distance, and few germinate if a month old."

It is also gratifying to learn from this work that Major Drury's 'Useful Plants of India,' published at our office, 45, Frith Street, Soho, has had a rapid and extensive sale (in India), and has to a great extent supplied the present want, viz. of a botanical manual of Indian plants, which is preparing by Dr. Cleghorn, the conservator of the forests in South India.

BOTANICAL NOTES, NOTICES, AND QUERIES.

New Material for Making Paper.

Indian-corn straw, it seems, was used for the manufacture of paper in Italy last century; but the manufacture declined, and the art was lost. An Austrian, M. Moritz Diamant, has re-discovered the process, and Count Charles of Lippe-Weissenfeld and some Swiss paper-makers are working it. The paper made from the Indian-corn straw is reported to be much better than from rags, being stronger and more tenacious, and a very small quantity of size is necessary to fit it for writing-paper. It is easy to bleach the fibre, and when used for packing-paper no bleaching is requisite. The paper has none of the brittleness peculiar to ordinary straw paper, arising from the large quantity of silica present in the straw. No machinery is requisite to convert the Indian-corn straw into pulp; and as the mode of manufacture is altogether much simpler than that followed in the case of rags, it is said that the paper will be much cheaper.

Helleborus viridis.

"We knowe (sayth Columella) a present remedy of the roote whych the shepherdes cal consiligo, that groweth in great plentie in mersis mountaynes, and it is very holsume for all cattell. They saye it shulde be used thus; the brodest parte of the ear must haue a rounde circle made aboute it wyth the blood that tyneth furth, wyth a brasene botkyne (bodkin), and the same circle must be rounde lyke unto the letter O; and when thys is done wythout, and in the hygher part of the eare, the halfe of the foresayd cyrcle is to be bored thorowe wyth the foresayd botkyne (bodkin), and the roote of the herbe is to be put in at the hole, whyche when the newe wounde hathe receyued, holdeth it so faste that it wyll not let it goo forthe: and then all the myght and pestilent poyson of the disease is brought so into the eare. And whyles the part whyche is circled aboute dyeth and falleth away, the hole beast is saued wyth the lose of very smalle part."—From *Turner's Herbal*, part i., page 65.

Castanea vulgaris.

I observe that this tree, in some of our *modern* works on botany, is called an *alien*, but why I know not. If length of abode in *plants*, as in many other things, constitutes *naturalization*, I think the chestnut cannot properly be called an *alien*.* It appears from Lambard's History of Kent, date 1570, that "this county had whole woodes that beare chesnut:" and Dr. Wm. Turner, in his Herbal, notices the tree, and says, "*Chesnut-trees grow plentuously in Kent, abroad in the feldes*, and in many gardens in England." Evelyn in his 'Sylva' gives a full description of the chestnut, and tells us "of a famous chestnut-tree at Tamworth in Gloucestershire, which has continued a signal boundary to that manor, in King Stephen's time as it stands upon record." The fruit of the chestnut is also noticed in Sir Thomas Elyot's 'Castle of Health,' as being eaten when roasted under the embers or hot ashes, *to nourish the* body and to help a *man of the cough*.

* Sir W. J. Hooker, in his 'British Flora,' speaks of the chestnut as growing in woods *apparently wild*.

I think it is quite time that some of the great guns in botany should decide the line which we are to draw so as to distinguish plants indigenous and non-indigenous, for as the question is still open, it is difficult to know what plants are British and what are not. I hope the Editor of the 'Phytologist' will give us some rules on this subject, for at present I do not know whether to include the *Castanea vulgaris* in my collection of British plants. S. B.

Japanese Botany.

"While upon the subject, I may introduce another distinguished German now well known in Europe, namely, Dr. Siebold. This veteran botanist now lives in the country a short distance to the north of Nagasaki, entirely away from Europeans, and his society consists of his plants, his books, and the Japanese. He has an excellent library of works on natural history, which he showed me with some pride, and also led me over his garden, which is rich in Japanese plants, many of which are new to Europe. An account of this garden, with the others about Nagasaki, must form the substance of another article. On taking my leave of Dr. Siebold, he accompanied me a little way down the hill. He speaks the Japanese language like a native, and seems to be a great favourite with the people around him, amongst whom he has great influence. 'Doctor,' I said to him, 'you appear to be quite a prince amongst the people in this part of the country.' He smiled, and said he liked the Japanese, and that he believed the regard was mutual. And with a slight cast of sarcasm in his countenance, continued, 'It is not necessary for me to carry a revolver in my belt like the good people in Decima or Nagasaki.'" R. F.

"The Green Immortal Shamrock."

In the last number of the 'Phytologist,' "S. B." says, "It is now generally agreed that the true Shamrock, which St. Patrick gathered to illustrate the doctrine of the Trinity, was *Trifolium repens*," etc. Now, the following extract will, I think, prove to "S. B.," and all those "now generally agreed," that they are agreed wrongly. History of Ireland, from 1599 to 1603, by Fynes Moryson, Secretary to the Lord Mountjoy, then Lord Deputy, page 375:—"They willingly eat the herb Schamrock, being of a sharp taste, which, as they run and are chased to and fro, they snatch like beasts out of the ditches." The "sharp taste," which Moryson refers to, is a well-known quality of the *Oxalis;* and, as none of the Clovers yield any such, we may safely conclude that the *Oxalis* is the true Shamrock. The above extract is also worthy of note, as it shows to what straits the "poor persecuted Irish" were reduced by the oppression of England, before they finally succumbed to her rule. William J. H. Ferguson.

To the Editor of the 'Phytologist.'

In your number for December, at page 379, there is an incidental mention of the parties who made "a Botanical Ramble on Ben Ledi" meeting with abundance of *Saxifraga cernua.* As Ben Lawers is, perhaps, the only known British locality of this plant, it is desirable that, if it have been really found on Ben Ledi, the fact should be more fully confirmed, or if there is any mistake about it, this may be corrected. I was once

told that *Saxifraga cernua* had been found on Lochnagar, but on the finder taking me to the place, the plant proved to be *Saxifraga rivularis*.

S. cernua is found abundantly on the mountains of Norway, chiefly on blackish places, where the snow has lain long; and in these places it is from six to twelve inches high, and has from one to three large, white flowers. It is more slender by rills at a lower elevation in higher latitudes, as in Tromsdale, by the path leading to the huts of the Lapps. This is a fine botanical locality, near the thriving, Arctic town of Tromsö. Among other interesting plants found in it in 1860, near to a large, permanent snow-patch, was *Woodsia glabella*, also *Cystopteris alpina*. *Woodsia glabella* was previously known, so far as I am aware, only as a native of North America, but the Norwegian plants present no difference, that I can perceive, from the American ones in the herbaria of Sir W. J. Hooker and Jas. G. Baker.

Saxifraga cernua is noted in the 'Botanical Guide,' on the authority of the Fl. Scot., as upon Craigcalleach, but this locality wants confirming.

In p. 381 of your December number, mention is made of *Rubus laciniatus* being found near Plymouth. I venture to express a doubt of *R. laciniatus* being more than an accidental variety of some other *Rubus*, and, probably, the laciniated varieties are not confined to one species.

York, Dec. 1861. JAS. BACKHOUSE.

"MISELTO."

(*From the 'Gardeners' Chronicle,' May 9th,* 1860.)

Your correspondent "Dorset" (see p. 433) writes learnedly upon the parasitical character of this plant, which he spells as above, but does not seem equally well acquainted with the derivation of the word. In Mudie's 'British Birds,' under the head "The Missel-Thrush, *Turdus viscivorus*," may be found the following paragraph:—"There is a sort of double naming in this bird; it is called the missel-thrush because it missels (soils) its toes with the viscid slimy juice of the mistletoe berries, of which it is very fond in the winter; and the mistletoe gets its name because it soils the toes of the bird." Both the Latin and English name of the bird seem to attest the truth of this observation, and it may perhaps not be without interest to some of your readers.

Fundenhall, Wymondham, May 15th. GERARD BARTON.

Germans, and others conversant with the German language, would probably give another but not a more delicate reason for the etymon of the name both of the bird and the shrub. The Latin scholar will recollect the classical proverb "*Turdus malum sibi cacat*," or, as a Scotchman would say, "He cuts a wand for his own back."

The old tradition about the origin of the Mistletoe was that only the partly digested seeds of the plant would grow, or, in other words, it was necessary that the seed should pass through the digestive apparatus or alimentary organs of a thrush.

MISTEL (German).—*Mistletoe* is derived from MIST, *muck*, in old English *mixen*, and *mistel-beere, mistletoe-berries*, and *mistel-drossel, mistle-thrush*, are its derivatives; the latter is so called from its feeding on the fruit of this parasite. The latter part of this compounded word is from Mœso-Gothic

tain, a 'toe' or 'branch,' changed into the Scottish *tae* and the English *toe*. Miller, the celebrated horticulturist and botanist, gives the most sensible history of the propagation of Mistletoe which I have seen. This author informs us that the thrush delights in the slimy part of the berry surrounding the seeds, and that in its efforts to disengage its beak it strikes or presses it on the branch of some contiguous tree, and if the bark be smooth, the seed will take root and grow. He also tells us that it grows best on smooth-rinded trees, as the ash, apple-tree, etc. Also that "whenever a branch of an oak-tree hath any of these plants growing upon it, it is cut off and preserved by the curious in their cabinets of natural curiosities."

"Down with the rosemary, and so
Down with the bays and mistletoe,
Down with the holly, ivy, all,
Wherewith ye deck the Christmas hall;
No one least branch leave there behind,
For look, how many leaves there be
Neglected there,—maids, 'tend to me,—
So many goblins ye shall see."

KAPPA.

NEW ZEALAND APPLES.

(*From the 'Lyttelton Times,' an Australian Paper.*)

The great superiority of the apples grown in Canterbury over those imported from the other settlements is abundantly exemplified by the beautiful specimens of splendid fruit to be seen in Mr. Wilson's seed-shop in Christchurch. A number of apples known by the names of the Emperor Alexander, Mobb's Royal, and the Kentish Fill-basket, measure each one foot two inches round, and weigh fourteen ounces; whilst Ribston Pippins and other choice sorts are not less remarkable for their colour, size, and flavour. Canterbury certainly gives promise of being a first-rate fruit-growing country, wherever due precaution is taken to provide the first requisite of successful gardening, namely, good shelter.

HONEYSTALKS OF SHAKSPEARE.

Will the following, taken from Nares's Glossary, answer S. B.'s question on this? and will the Editor of the 'Phytologist' tell me if he agrees with Dr. Nares?

"*Honeystalks.*—Clover flower which contains a sweet juice. It is common for *cattle to overcharge themselves with clover, and die.*"

"With words more sweet, and yet more dangerous,
Than baits to fish, or *Honeystalks* to sheep."—*Titus Andro.*, iv. 4.

HARRIET BEISLY.

NOTICE.

To Microscopic Botanical Observers, and others who are interested in similar researches.—Mr. Winter's List, which was announced in the December number of the 'Phytologist,' is not yet full: a few more subscribers can be supplied with sets of the Fen-productions of the county of Norfolk. Any further information will be afforded on application to Mr. Winter, Bressingham, near Diss, Norfolk.

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